

### **ABSTRACT OF THE DISCLOSURE**

A method for data transmission via several data channels in a network linking several units to one another, where the units can function as data sources, data sinks or transceivers, includes the steps of arbitrarily assigning a first data channel to a first predetermined one or more connection segments; arbitrarily assigning the first channel to a second predetermined one or more connection segments other than the first predetermined one or more connection segments; and simultaneously transmitting data between two units across the first predetermined one or more connection segments via the first data channel, and between two or more other units across the second predetermined one or more connection segments via the first data channel. The data are transmitted in a first direction over the first predetermined at least one connection segment, and the data are transmitted in a second direction over the second predetermined at least one connection segment, where the first and second directions are the same.